

53. (new) A process of substantially preventing the formation of at least one nitrosamine in a harvested tobacco plant, the process comprising:

drying at least a portion of the plant, while said portion is uncured, yellow, and in a state susceptible to having the formation of nitrosamines arrested, in a controlled environment and for a time sufficient to substantially prevent the formation of said at least one nitrosamine;

wherein said controlled environment comprises air free of combustion exhaust gases and an airflow sufficient to substantially prevent an anaerobic condition around the vicinity of said plant portion; and

wherein said controlled environment is provided by controlling at least one of humidity, rate of temperature change, temperature, airflow, CO level, CO₂ level, O₂ level, and arrangement of said tobacco plant.

54. (new) A process of substantially preventing the formation of at least one nitrosamine in a harvested tobacco plant, the process comprising:

drying at least a portion of the plant, while said portion is uncured, yellow, and in a state susceptible to having the formation of nitrosamines arrested, in a controlled environment and for a time sufficient to substantially prevent the formation of said at least one nitrosamine;

wherein said controlled environment comprises air substantially free of combustion exhaust gases and an airflow sufficient to substantially prevent an anaerobic condition around the vicinity of said plant portion;

wherein said controlled environment is provided by controlling at least one of humidity, rate of temperature change, temperature, airflow, CO level, CO₂ level, O₂ level, and arrangement of said tobacco plant; and

wherein, following said drying in said controlled environment, the plant portion has a content of at least one tobacco-specific nitrosamine selected from the group consisting of N'-nitrosonornicotine, 4-(N-nitrosomethylamino)-1-(3-pyridyl)-1-butanone, N'-nitrosoanatabine, and N'-nitrosoanabasine which at least 75% by weight lower than the content of said at least one tobacco-specific nitrosamine in cured brown tobacco made from the same tobacco crop but which was cured in the absence of steps designed to reduce the content of said at least one nitrosamine.

55. (new) The process of claim 54, wherein the at least one tobacco-specific nitrosamine is 4-(N-nitrosomethylamino)-1-(3-pyridyl)-1-butanone.

56. (new) The process of claim 54, wherein said content of at least one tobacco-specific nitrosamine is at least about 90% by weight lower than the content of said at least one tobacco-specific nitrosamine in said cured brown tobacco.

57. (new) The process of claim 56, wherein said content of at least one tobacco-specific nitrosamine is at least about 95% by weight lower than the content of said at least one tobacco-specific nitrosamine in said cured brown tobacco.

58. (new) A process of substantially preventing the formation of at least one nitrosamine in a tobacco plant, the process comprising:

heating at least a portion of a tobacco plant with convection air while said portion is uncured, yellow, and in a state susceptible to having formation of said at least one nitrosamine arrested, for a time sufficient to substantially prevent formation of said at least one nitrosamine;

wherein said convection air is free of combustion exhaust gases and substantially prevents an anaerobic condition around the vicinity of said plant.

59. (new) The process of claim 58, wherein the airflow is at least about 70 CFM at 1" static pressure per cubic foot of volume.

60. (new) The process of claim 59, wherein the airflow is at least about 80 CFM at 1" static pressure per cubic foot of volume.

61. (new) The process of claim 58, wherein the air is heated to a temperature of from about 100°F to about 250°F.

62. (new) The process of claim 61, wherein the temperature is from about 160°F to about 170°F.

63. (new) A process of substantially preventing the formation of at least one nitrosamine in a tobacco plant, the process comprising:

heating at least a portion of a tobacco plant with convection air while said portion is uncured, yellow, and in a state susceptible to having formation of said at least one nitrosamine arrested, for a time sufficient to substantially prevent formation of said at least one nitrosamine;

wherein said convection air is substantially free of combustion exhaust gases and substantially prevents an anaerobic condition around the vicinity of said plant; and

wherein, following said heating with convection air, the plant portion has a content of at least one tobacco-specific nitrosamine selected from the group consisting of N'-nitrosonornicotine, 4-(N-nitrosomethylamino)-1-(3-pyridyl)-1-butanone, N'-nitrosoanatabine, and N'-nitrosoanabasine which at least 75% by weight lower than the content of said at least one tobacco-specific nitrosamine in cured brown tobacco made from the same tobacco crop but which was cured in the absence of steps designed to reduce the content of said at least one nitrosamine.

64. (new) The process of claim 63, wherein the at least one tobacco-specific nitrosamine is 4-(N-nitrosomethylamino)-1-(3-pyridyl)-1-butanone.

65. (new) The process of claim 63, wherein said content of at least one tobacco-specific nitrosamine is at least about 90% by weight lower than the content of said at least one tobacco-specific nitrosamine in said cured brown tobacco.

66. (new) The process of claim 65, wherein said content of at least one tobacco-specific nitrosamine is at least about 95% by weight lower than the content of said at least one tobacco-specific nitrosamine in said cured brown tobacco.

67. (new) The process of claim 53 wherein the tobacco is selected from the group consisting of flue varieties, Burley varieties, and oriental/Turkish varieties.

68. (new) The process of claim 63 wherein the tobacco is selected from the group consisting of flue varieties, Burley varieties, and oriental/Turkish varieties.--